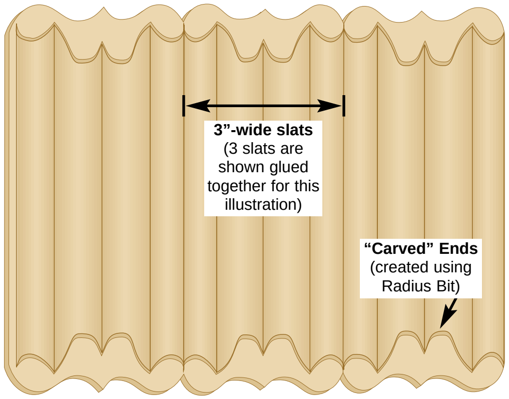
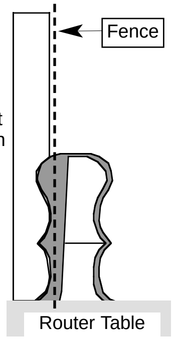
Linen Fold Bits

655-903 & 651-004B

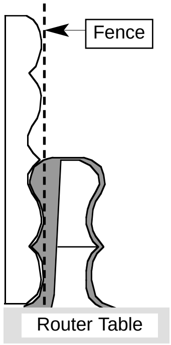
Our Linen Fold bits and a flush trim bit allow you to produce the linen fold quickly and efficiently with any 1/2” collet router. You’ll form the large panel from a series of 3”-wide slats that are routed as shown in steps #1 and #2 below. Then you’ll glue the slats together and use a shop-built jig and the Radius bit to create a “carved” effect across the ends.


3”-wide slats
(3 slats are shown glued together for this illustration)
“Carved” Ends
(created using Radius Bit)

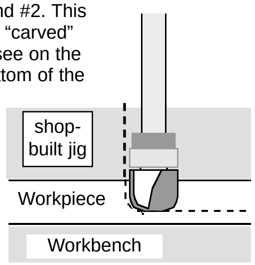
Cut #1: Start with a 3” wide strip of 3/8” thick material. Your bit will cut half of the linen fold profile on the first pass. Caution: Pusher blocks and hold-down devices must be used!



Cut #2: Flip the stock over and rout the other half of the face. Use care with this set up so the two cuts meet as shown. Caution: Pusher blocks and hold-down devices must be used!



Cut #3:
You’ll need to build a simple jig for this step (we include complete instructions). Using the Linen Fold Radius bit, rout the end grain of the molding you milled in steps #1 and #2. This creates the “carved” effect you see on the top and bottom of the panels above.



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INSTRUCTIONS FOR PRODUCING LINEN FOLD PLAQUES

Producing Linen Fold panels

The linen fold design has been used to adorn furniture for centuries, but it's a difficult shape to produce using traditional hand carving.

With the Jesada Linen Fold bits you will be able to create this effect with your router and a simple jig you will need to make. The Linen Fold Profile cutter produces the molding on the face of the panels, the Linen Fold Radius bit and 1/2" Flush Trim bit are used, with this jig, to create the carved effect on their ends.

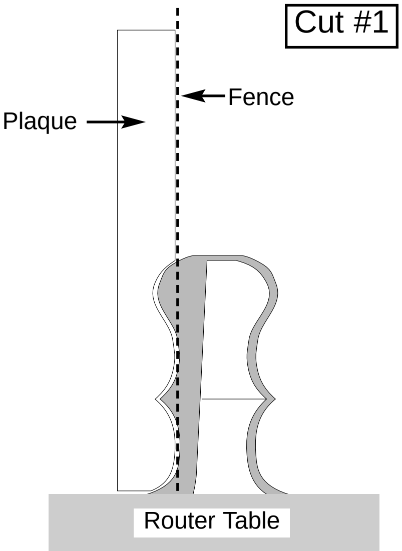
The linen fold panels, or plaques as we will refer to them, are made from 3" wide strips which can be fitted together side-by-side to create a linen fold panel effect as wide as you like.

Preparing and molding the plaques

Machine stock for the plaques from your chosen material, this will usually be the same material as the panel it is to be glued to.

The plaques need to be exactly 3" wide, 3/8" thick and in lengths of roughly 36" long, any longer and the panels become difficult to mold accurately.

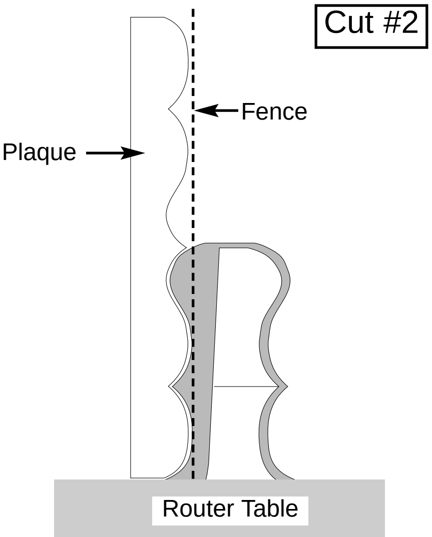
Cut #1



The first process is to produce the molding on the front of the plaques and this is achieved with the (655-903) Linen Fold Profile bit. This is fitted into a 1/2" collet router which must be installed into a router table with a sturdy fence.

The router table fence is aligned with the narrowest diameter of the cutter to ensure that as the material is molded there is sufficient material to run on the fence. Use a straight edge on the narrowest part of the bit and make sure it touches the fence on both sides.

Cut #2



Set the height of the profile bit so that exactly half of the plaque is molded (see Cut #1) then turn the plaque over and mold the other half to complete the 3" wide profile (see Cut #2). If there is not a point where the two cuts meet either the bit is set too low or the plaque is wider than 3".

Building the jig

The baseboard of the jig is made from 3/4" MDF or Birch plywood and is 18" long by 8" wide. Cut this to size then transfer the design and all the lines from the 'Baseboard Template' drawing onto the end of the baseboard using carbon paper. Carefully cut on the line with a scrollsaw, jigsaw or coping saw, ensuring that the cut is to the inside of the line and square to the face of the baseboard.

Next cut two battens about 1" wide and 18" long from 3/8" thick plywood or a stable hardwood such as Maple. The strips must be slightly thicker than your machined plaques to allow them to slide when the top plate of the jig is in place.

Glue and screw the first batten onto the baseboard so it is flush on the molded end of the baseboard' and its edge in position on line 'C' which should be transferred from the 'Baseboard Template'.

Fix the second batten onto the baseboard so the 3" plaques will slide between the two battens without lateral movement. Align the batten's end with the baseboard's end but this time the end of the batten will need to be tapered to match the profile shown.

The top router guide is made from 3/8" MDF or Birch plywood. Transfer the pattern from the 'Top' Template' drawing, to the top templete, with carbon paper and carefully cut to shape.

Fix the top template, with glue and screws, onto the battens so it in the position shown on the 'Top Template' drawing.

Attach a toggle clamp with its pad positioned to hold a round part of the plaque's molding so it doesn't cause damage and placed it where it won't interfere with the path of the router.

Profiling the plaque ends

Fix the jig securely to a bench and you are ready to produce 'Linen Fold' plaques.

Cut the plaques to the desired length and slide one, molded face down, into the jig until its end is on line 'A', then clamp in place.

Use a 1/2' diameter Flush Trim bit, with the bearing running on the baseboard profile, to shape the end of the plaque. Always work towards the center of the plaque.

Turn the plaque over and slide it into the jig so its end is on line 'A' and shape the second half of the plaque.

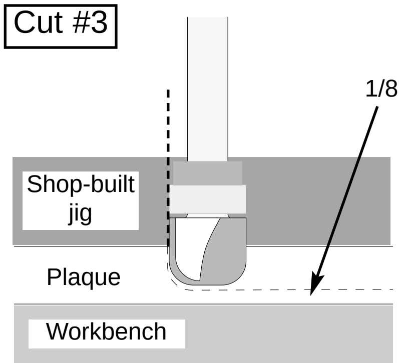
Repeat this process on all the plaque ends until they are all shaped.

Fit the (651-004B) Linen Fold Radius bit into the router and set it to depth. Leave about 1/8" of plaque material under the bit (see Cut #3).

Place a plaque back into the jig so its end is on line 'B' and run the bit straight across the full width of its end. Then run the bit's bearing along the jig's profile to create the 'carved look' on the end of the plaque.

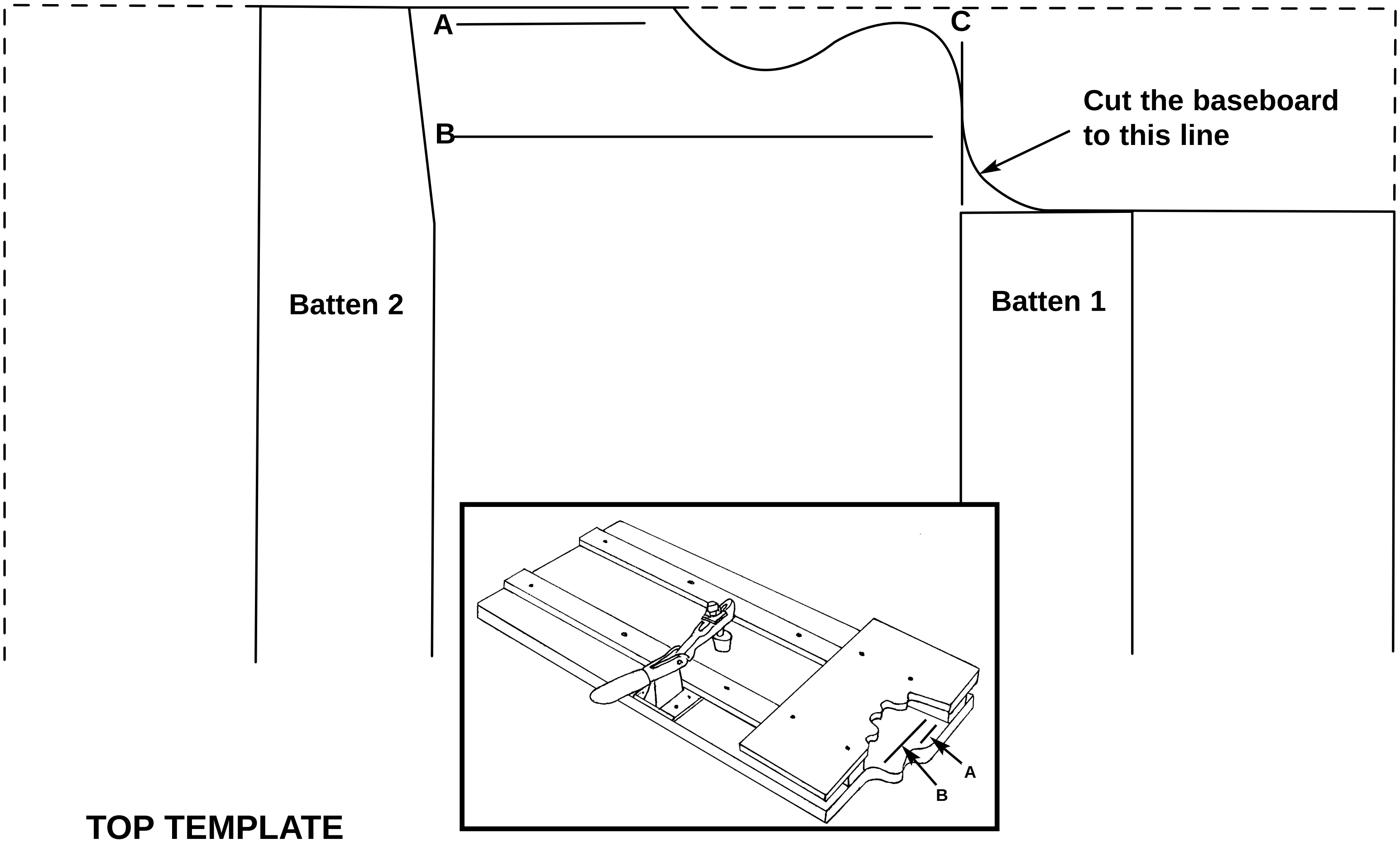
Repeat the process on the ends of all of the plaques making sure that all the waste material is removed to create a smooth finish.

Cut #3



If you have two routers why not set them up with the flush trim in one and the radius bit in the other, to save time.

BASEBOARD TEMPLATE



TOP TEMPLATE